

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:**Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-017218**Date Inspected:** 30-Sep-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1100**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site**CWI Name:** Tom Pasqualone**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG Section**Summary of Items Observed:**

This Quality Assurance (QA) Inspector, Craig Hager was on site at the job site between the times noted above.

This QA Inspector was on site to randomly observe Quality Control (QC) personnel perform Non-Destructive Testing (NDT) and to monitor American Bridge/Fluor (ABF) welding operations.

The following observations were made:

1) At weld joints E7/E8 – D1 and D2, inside and outside the OBG section: ABF welding personnel were performing the following;

a. ABF welding personnel Xiao Jian Wan (#9677) was using a grinder to clean and/or contour the continuous tack welds completed the previous shift.

b. ABF welding personnel James Zhen (#6001) was setting up the ventilation and track system in preparation for starting Submerged Arc Welding (SAW) at this location.

c. ABF welding personnel Song Tao Huang (#3794) was outside the OBG section setting up the preheating equipment in preparation to begin welding at this location.

2) At weld joints E6/E7 – C1 and C2, outside the OBG section: ABF welding personnel Rory Hogan (#3186) and Jeremy Dolan (#5042) are in the process of setting up equipment to start the removal of the backing strap.

3) At weld joints E6/E7 – E1 and E2, outside the OBG section: The backing strap has been removed and the weld back gouged, see below for details.

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4) At weld joints E6/E7 – A1, outside the OBG section: ABF welding personnel Fred Kaddu (#2188) was performing repair welding using the Shielded Metal Arc Welding (SMAW) process. QC Inspector Tom Pasqualone was present.

At weld joints E7/E8 – D1 and D2, inside and outside the OBG section this QA Inspector observed the following ABF welding personnel performing the following activities; (1) ABF welding personnel Xiao Jian Wan (#9677) was using a grinder to clean and/or contour the continuous tack welds completed the previous shift. (2) ABF welding personnel James Zhen (#6001) was setting up the ventilation and track system in preparation for starting SAW at this location. (3) ABF welding personnel Song Tao Huang (#3794) was outside the OBG section setting up the preheating equipment in preparation to begin welding at this location. This QA Inspector observed ABF personnel preparing to begin welding, but did not observe welding at this location during the shift.

At weld joints E6/E7 – C1 and C2, outside the OBG section this QA Inspector observed ABF welding personnel Rory Hogan (#3186) and Jeremy Dolan (#5042) were in the process of setting up equipment to start the removal of the backing strap. This QA Inspector observed the backing strap is still in place on weld joint “D”.

At weld joints E6/E7 – E1 and E2, outside the OBG section this QA Inspector observed the backing strap had been removed and the weld back gouged. As previously reported there was plainer misalignment for approximately 400 mm with the maximum being 13 mm adjacent to weld “F” at this location. See photos below for details. QC personnel have not performed Magnetic Particle Testing (MT) on the back gouged section of the weld as of this date.

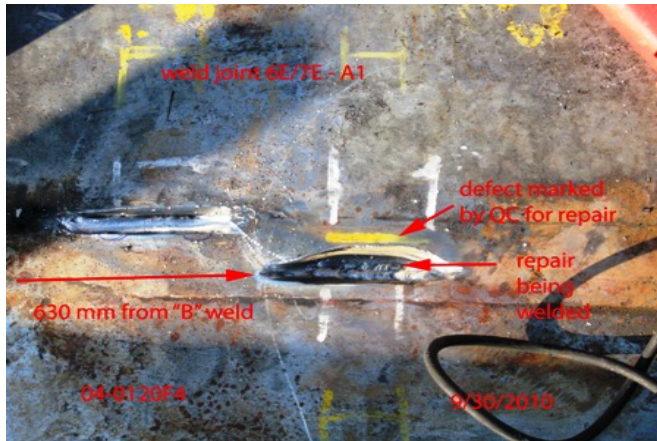
At weld joints E6/E7 – A1, outside the OBG section this QA Inspector observed ABF welding personnel Fred Kaddu (#2188) was performing repair welding using the SMAW process. This QA Inspector observed 2 excavations at the following locations; (1) approximately 500 mm from weld “B” an excavation approximately 110 mm in long, 30 mm wide and 12 mm deep (2) approximately 630 mm from weld “B” an excavation approximately 125 mm long, 25 mm wide and 20 mm deep. The depths of the excavations was obtained from the markings adjacent to the defects marked on the deck by QC personnel, the root pass and approximately 2 fill passes had been welded prior to this QA Inspector’s arrival at this location. This QA Inspector observed an additional defect (Ultrasonic Testing) marked adjacent to one of the excavation the distance between the excavation and the “marked” defect was approximately only 5 mm in length. See photo below. This QA Inspector observed QC Inspector Tom Pasqualone was present and monitoring the work. This QA Inspector verified the SMAW welding parameters to be as follows; 115 amperes using a 3.2 mm diameter E7018H4R electrode. The welding observed appeared to comply with Welding Procedure Specification (WPS) ABF-WPS-D15-1001-Repair. This QA Inspector and QC Inspector Tom Pasqualone discussed the close proximity of the one repair that was excavated and the other that was not. It was determined the means and method of repair welding were the contractor prerogative provided work complied with the contract requirements.

Summary of Conversations:

As noted above.

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Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mohammad Fatemi (916) 813-3677, who represents the Office of Structural Materials for your project.

Inspected By: Hager, Craig

Quality Assurance Inspector

Reviewed By: Levell, Bill

QA Reviewer